Declaration and Power of Attorney

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled "EFFLUENT GAS STREAM TREATMENT SYSTEM HAVING UTILITY FOR OXIDATION TREATMENT OF SEMICONDUCTOR MANUFACTURING EFFLUENT GASES," the specification of which:

| _√ is attached hereto._ was filed on | , as Applic | eation Serial No. | | |
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| and was amended | on | - | | |
| I hereby state that I have revispecification, including the claims | iewed and under s, as amended by a | rstand the contents of the contents of the contents of the contents are contents of the conten | ne above-refe above. | renced |
| I acknowledge the duty to disc application in accordance with Ti | lose information tle 37, Code fo Fe | which is material to the deral Regulations, §1.56(a | examination). | of this |
| I hereby claim foreign priority b application(s) for patent or inven- foreign application for patent o application of which priority is cla | ntor's certificate li or inventor's certi | sted below and have also | identified belo | วฆ สทบ |
| Prior Foreign Application(s) | | | Priority Clair | <u>ned</u> |
| None (Number) | (Country) | (Day/Month/Year Filed) | Yes No | |
| I hereby claim the benefit und application(s) listed below and application is not disclosed in the paragraph of Title 35, United Sinformation as defined in Title 37 the filing date of the prior application. | , insofar as the sprior United State tates Code, §112, Code of Federal | subject matter of each of s application in the manne , I acknowledge the duty Regulations, §156(a), wh | f the claims of provided by to disclose mich occurred be | of this he first naterial etween |
| | | | | |
| (Application Serial No.) | (Filing Date | te) (Statu | is) | |
| I hereby appoint the following at | torneys or agents | to prosecute this applicati | on and to trans | sact all |

Steven J. Hultquist, Registration No. 28,021 Janet Elliott, Registration No. 33,594

business in the Patent and Trademark Office connected therewith:

Direct all telephone calls to Steven J. Hultquist, 919/990-9531. Address all correspondence to Steven J. Hultquist, IP/TL, P.O. Box 14329, Research Triangle Park, NC 27709.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements, and the like, so made are punishable by fine or imprisonment, or both, under Section 1001 or Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

| Full name of first inventor Mark Holst | - | |
|--|--|---------------|
| Inventor's signature | Date: | |
| Residence 124 Homewood Drive, Concord, California 94518 | | |
| Citizenship USA | | |
| Post Office Address 124 Homewood Drive, Concord, California 94518 | | |
| | | |
| Full name of second inventory Kent Carpenter | | |
| Inventor's signature | Date: | 12/6/96 |
| Residence 257 Butternut Lane, Stamford, Connecticut 06903 | Date. | · voltx |
| Citizenship USA | | |
| Post Office Address 257 Butternut Lane, Stamford, Connecticut 06903 | | V |
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| | | |
| Full name of third inventor Scott Lane | | |
| Inventor's signature | | |
| Residence 1233 West Morelos Street, Chandler, Arizona 85224 | | |
| Citizenship <u>USA</u> | | |
| Post Office Address 1233 West Morelos Street, Chandler, Arizona 8522 | 4 | |
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| | | |
| Full name of fourth inventor Prakash V. Arya | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| Full name of fourth inventor Prakash V. Arya Inventor's signature Prakash Vi Buy. | Date: | 12/06/96 |
| Residence 150 Bennett Avenue, Apt. 6A, New York, New York 10040 | | |
| Citizenship India | | |
| Post Office Address 150 Rennett Avenue Ant 64 New York New Y | | M0 |

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| | is attached hereto. was filed on and was amended o | , as Applic | ation Serial No. | |
|---|--|---|--|---|
| I hereby star specification, | te that I have revie including the claims, | wed and under as amended by a | stand the contents of the cont | ne above-referenced above. |
| I acknowledge application in | ge the duty to disclo accordance with Titl | ose information e 37, Code fo Fe | which is material to the deral Regulations, §1.56(a | examination of this |
| application(s) foreign appli | for patent or invent | or's certificate li inventor's certi | e 35, United States Code, sted below and have also ficate having a filing date | identified below any |
| Prior Fore | ign Application(s) | | | Priority Claimed |
| None | | | | |
| (Number) | | (Country) | (Day/Month/Year Filed) | Yes No |
| application is application is paragraph of information a |) listed below and, not disclosed in the p Title 35, United Stass defined in Title 37, | insofar as the strior United States tes Code, §112, Code of Federal | ted States Code, §120 of subject matter of each of application in the manner I acknowledge the duty Regulations, §156(a), while attended or PCT internation | f the claims of this provided by the first to disclose material ich occurred between |
| | | | | |
| (Applicati | on Serial No.) | (Filing Dat | re) (Statu | is) |
| I hereby appo | int the following atte | rmatic or aconta | to muococute this surliceti | |

I hereby appoint the following attorneys or agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Steven J. Hultquist, Registration No. 28,021 Janet Elliott, Registration No. 33,594

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| Full liame of first inventor Mark Hoist | | |
|---|-------|----------|
| Inventor's signature / /// | Date: | 17/10/96 |
| Residence 124 Homewood Drive, Concord, California 94518 | | |
| Citizenship <u>USA</u> | | |
| Post Office Address 124 Homewood Drive, Concord, California 94518 | | |
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| | | |
| Full name of second inventor Kent Carpenter | | |
| Inventor's signature | | *** |
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| Citizenship USA | | |
| Post Office Address 257 Butternut Lane, Stamford, Connecticut 06903 | | |
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| Full name of third inventor Scott Lane | | |
| Inventor's signature | Date: | |
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| Citizenship <u>USA</u> | | |
| Post Office Address 1233 West Morelos Street, Chandler, Arizona 85224 | | |
| - | | |
| | | |
| Full name of fourth inventor Prakash V. Arya | | |
| Inventor's signature | Date: | |
| Residence 150 Bennett Avenue, Apt. 6A, New York, New York 10040 | | |
| Citizenship <u>India</u> | | • |
| Post Office Address 150 Report Avenue Ant 64 New York N. W. | 1 100 | 10 |

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| | is attached hereto. was filed on and was amended o | , as Applic | ation Serial No | *************************************** | |
|--|--|---|--|---|--|
| | e that I have revie including the claims, | | | | -referenced |
| | ge the duty to disclo accordance with Titl | | | | tion of this |
| application(s) foreign applie | n foreign priority be for patent or invente cation for patent or which priority is claim | or's certificate lis inventor's certi | sted below and have | also identified | d below any |
| Prior Fore | ign Application(s) | | | Priority | Claimed |
| None (Number) | | (Country) | (Day/Month/Year F | iled) Yes | No |
| application(s) application is paragraph of information as | m the benefit unde listed below and, not disclosed in the p Title 35, United States defined in Title 37, to of the prior applica | insofar as the strior United State ates Code, §112, Code of Federal | subject matter of east application in the many in acknowledge the Regulations, §156(a) | ach of the cla nanner provided duty to disclo), which occur | ims of this d by the first ose material red between |
| (Applicati | on Serial No.) | (Filing Da | te) | (Status) | *************************************** |
| I hereby appo | int the following atto | orneys or agents | to prosecute this app | lication and to | transact all |

Steven J. Hultquist, Registration No. 28,021 Janet Elliott, Registration No. 33,594

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| run name of first inventor <u>Mark Hoist</u> | ···· | |
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| Full name of second inventor Kent Carpenter | <u>-</u> | |
| Inventor's signature | | |
| Residence 257 Butternut Lane, Stamford, Connecticut 06903 | | |
| Citizenship USA | | 1476-77 d Marshan Saniyaliyi da dagaa ayaa ayaa ayaa ayaa ayaa ayaa |
| Post Office Address 257 Butternut Lane, Stamford, Connecticut 06903 | | |
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| | | |
| Full name of third inventor Scott Lane | | |
| Inventor's signature | Date: | 12/1/96 |
| Residence 1233 West Morelos Street, Chandler, Arizona 85224 | | |
| Citizenship USA | | |
| Post Office Address 1233 West Morelos Street, Chandler, Arizona 8522 | | |
| • | | |
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| Full name of fourth inventor Prakash V. Arya | | |
| Inventor's signature | | |
| Residence 150 Bennett Avenue, Apt. 6A, New York, New York 10040 | | |
| Citizenship India | | |
| Post Office Address 150 Bennett Avenue, Apt. 6A, New York, New Y | | |

ASSIGNMENT

ATMI Ecosys Corporation, having offices at 617 River Oaks Parkway, San Jose, California, 95134, is the assignee and owner of the following patent and patent applications in accordance with Assignments recorded in the assignments recorded in the assignment records of the United States Patent and Trademark Office as below identified,

| Attorney Docket Number | U.S. Patent | Date U.S. Patent Granted | Title of U.S. Patent Application | Assignment Recorded, Reel Number/Frame Number |
|------------------------------|-------------|--------------------------|--|---|
| 137FWCE | 5,777,058 | 7/7/1998 | Process for Sorption of Hazardous Waste Products from Exhaust Gas Streams | 7257/0842 |
| 147 E | 5,011,520 | 4/30/1991 | Hydrodynamic Fume Scrubber | 8283/0316 |
| 154E | 5,676,712 | 10/14/1997 | Flashback Protection Apparatus and Method for Suppressing Deflagration In Combustion Susceptible Gas Flow | 7776/0614 |
| 159CPAE | 5,914,091 | 6/22/1999 | Point-of-Use Catalytic Oxidation Apparatus and Method for Treatment of VOC-Containing Gas Streams | 8064/0555 |
| 161E | 5,873,388 | 2/23/1999 | System for Stabilization of Pressure Perturbations from Oxidation systems for Treatment of Process Gases from Semiconductor Manufacturing Operations | 8030/0610 |
| 162/CIPE | 5,851,293 | 12/22/1998 | Flow-Stabilized Wet Scrubber System For Treatment Of Process Gases From Semiconductor Manufacturing Operations | 8745/0367 |
| 163E | 5,955,037 | 9/21/1999 | Effluent Gas Stream Treatment System Having Utility For Oxidation Treatment Of Semiconductor Manufacturing Effluent Gases | 8387/0516 |
| 167E | 5,846,275 | 12/8/1998 | Clog-Resistant Entry Structure For Introducing A Particulate Solids- Containing Fluid Stream To A Fluid Processing System | 8394/0938 |

| Attorney Docket Number | U.S. Patent | Date U.S. Patent Granted | Title of U.S. Patent Application | Assignment Recorded, Reel Number/Frame Number |
|------------------------------|-------------|--------------------------------|---|--|
| 167CIPE | 5,935,283 | 8/10/1999 | Clog-Resistant Entry Structure For Introducing A Particulate Solids- Containing And/Or Solids-Forming Gas Stream To A Gas Processing System | 8984/0441 |
| 168E | 5,833,888 | 11/10/1998 | Weeping Weir Gas/Liquid Interface Structure | 8390/0156 |
| 170A | 4,661,056 | 4/28/1987 • | Turbulent Incineration of Combustible Materials Supplied in Low Pressure Laminar Flow | 8989/0895 |
| 201CON | 6,030,591 | 2/29/2000 | Process for Removing and Recovering Halocarbons from Effluent Process Streams | 9361/0694 |

| | | | Low Pressure Laminar Flow | |
|----------|-------------|------------------|--|----------------|
| 201CON | 6,030,591 | | Process for Removing and Recovering Halocarbons from | 9361/0694 |
| | | | Effluent Process Streams | |
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| 4 | | | | Assignment |
| Attorney | U.S. Patent | Date U.S. Patent | | Recorded, Reel |
| Docket | Application | Application | | Number/Frame |
| Number | No. | Filed | Title of U.S. Patent Application | Number |
| 163ECON | 09/400,662 | 9/20/1999 | Effluent Gas Stream Treatment | 8387/0516 |
| | | | System Having Utility For Oxidation Treatment Of | |
| | | | Semiconductor Manufacturing Effluent Gases | |
| 317CPA | 09/086,033 | 11/22/1999 | Apparatus And Method For Point-Of-Use | 9221/0584 |
| 1 | | | Abatement Of Fluorocompounds | |
| | | | | |

Advanced Technology Materials Inc, for the benefit of itself, its successors and assigns, all inclusively hereinafter referred to as the "Assignee", desires to acquire the entire right, title and interest in and to such inventions, such applications, all inventions disclosed in such applications identified in the above table, and any and all Letters Patents of the United States and of all other countries which may be granted for such invention or inventions, or any of them.

ATMI Ecosys Corporation, hereby conveys, assigns and transfers to the Assignee its full and entire right, title and interest in and to such inventions and such application, including all priority rights arising therefrom, all inventions disclosed in such application, and any and all Letters Patents of the United States and of all other countries, together with the right to apply for such Letters Patents which may be granted for such invention, inventions, or any of them.

By this Assignment, the Assignee has, holds and enjoys such inventions, such application, and such Letters Patents, for its own use and benefit, to the full end of the term or terms for which such Letters Patents may be granted, as fully and entirely as the same would have been held and enjoyed by ATMI Ecosys Corporation, had this assignment not been made.

On behalf of ATMI Ecosys Corporation, the undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks of the United States and the appropriate officers of all foreign countries to issue any and all Letters Patents which may be granted on such applications above referred to or for such inventions, or any of them, to the Assignee in accordance with the terms of this instrument.

ATMI Ecosys Corporation, hereby agrees to execute and sign without further consideration any other legal documents, and any other assignments and any divisional, continuing, renewal, reissue or other applications for all patents that may be appropriate and may be deemed necessary by the Assignee to fully secure to the Assignee its interests in such inventions or any part thereof and in such patents or any of them.

ATMI Ecosys Corporation, further covenants and agrees ATMI Ecosys Corporation that will communicate to the Assignee, its successors, assigns or other legal representatives, any facts known to ATMI Ecosys Corporation relating to such invention and any patent that may be granted thereon, and will testify as to the same in any interference or litigation when requested to do so.

ATMI Ecosys Corporation hereby covenants that ATMI Ecosys Corporation has not hitherto assigned or granted any license to make, use or sell said invention, and that ATMI Ecosys Corporation will not hereafter purport to assign, license or execute any instrument to that effect in conflict with this assignment.

July 26, 2001

Date

Name: Daniel P. Sharkey

Title: CFO, Treasure and Secretary